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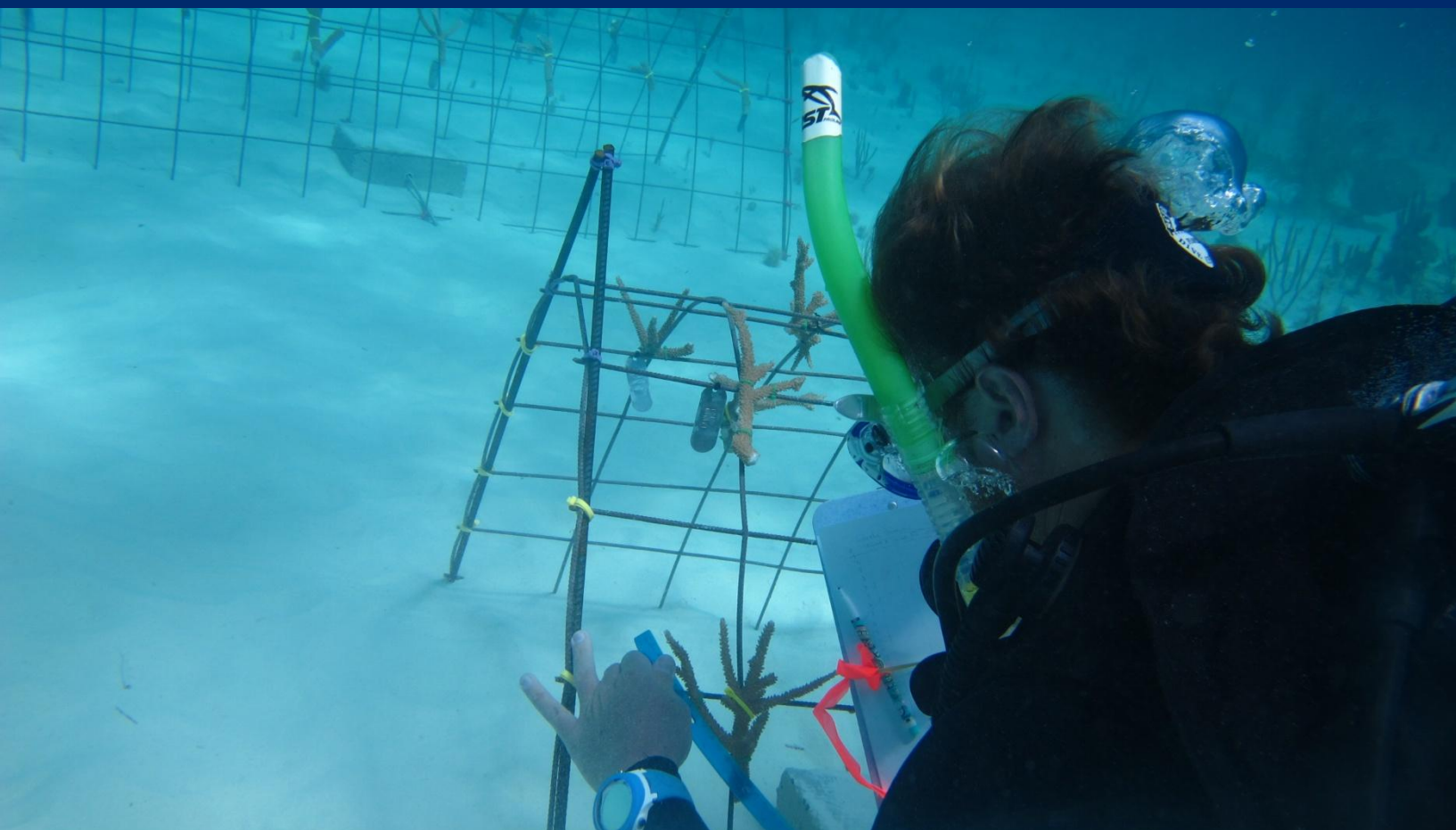
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Environmental Protection Program

Cooperative Agreement No. 517-A-00-09-00106-00

Annual Report

October 2011 - September 2012



December 21, 2012

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Cover information: Coral nurseries structures installed by FUNDEMAR near Bayahibe. Photo: @FUNDEMAR.

The USAID/TNC Environmental Protection Program

Cooperative Agreement Information

The USAID-TNC Environmental Protection Program will support the DR's ability to adapt to global climate change by integrating stakeholders at the local and national levels into a comprehensive approach that includes ecosystems based adaptation in selected sites, mainly the Samaná Bay and Bayahibe areas, capacity building and policy development.

The USAID-TNC Environmental Protection Program (USAID-TNC EPP) will build Dominican capacity for interpretation of information on climate change and its impacts, for coordinating among government offices at all levels, NGOs, and the private sector to develop the enabling policy environment for climate adaptation actions, and for implementing on-the-ground adaptation interventions that build society's resilience to climate change. During FY12 USAID-TNC EPP maintained continuity in many of the biodiversity conservation activities it has supported since 2009 (for the goal of biodiversity conservation, and to demonstrate approaches in the Dominican situation that are useful in climate adaptation sites) and finalized trade related environmental management activities.

It is a five-year initiative implemented through a cooperative agreement with The Nature Conservancy and sub-awards with the Technological Institute of Santo Domingo (INTEC), the Center for the Conservation and Eco-Development of Samaná Bay and Its Surrounding Areas (CEBSE), the Pro-Naturaleza Fund, Inc. (PRONATURA), Dominican Institute for Integral Development (IDDI) and Foundation for Marine Studies (FUNDEMAR).

Reporting Period:

This is the Annual Report for the USAID Environmental Protection Program (USAID/TNC-EPP) which covers activities carried out from October 1st, 2011 to September 30th, 2012. The USAID/TNC - EPP falls under Cooperative Agreement No. 517-A-00-09-00106-00 between The Nature Conservancy (TNC) and the United States Agency for International Development (USAID).

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Acronyms:

WIDECAST	Caribbean Sea Turtle Network
CCAD	Central American Commission for Environment and Development
CDSS	Caribbean Decision Support System
CEBSE	Center for the Conservation and Eco-Development of Samaná Bay and Its Surrounding Areas
CEDAF	Center for Agricultural and Forestry Development
CITES	Convention on International Trade in Endangered Species of Wild Fauna and Flora
CODOPESCA	Dominican Council of Fisheries and Aquiculture
CP	Cleaner Production
CNCCMDL	National Council for Climate Change and Clean Development Mechanisms
DR-CAFTA	Dominican Republic - Central America Free Trade Agreement
EBA	Ecosystem-Based Adaptation
ECA	Environmental Cooperation Agreement
EMS	Environmental Management Systems
ELI	Environmental Law Institute
FONDO MARENA	National Fund for the Environment and Natural Resources
CCA	Climate Change Adaptation
GCC	Global Climate Change
INTEC	Technological Institute of Santo Domingo
IDECOOP	Dominican Institute for Cooperatives Development
KAP	Knowledge, Attitude and Perception
ME	Ministry of Environment and Natural Resources
NASA	National Aeronautics and Space Administration
NEPAssist	Tool to facilitate the environmental review process and project planning
NGO	Non-Governmental Organizations
PMU	Program Management Unit
PRONATURA	Pro-Nature Fund, Inc.
RENAEPA	National Network of Businessmen for Environmental Protection
SECTUR	Dominican Republic Tourism Ministry
ME	Dominican Republic Ministry of Environment and Natural Resources
TNC	The Nature Conservancy
UGAMS	Municipal Environmental Management Units
UNFU	Pedro Henríquez Ureña National University
UICN	International Union for Conservation of Nature
USAID	United States Agency for International Development
USFS	United States Forest Service
USAID-DSTA	Dominican Sustainable Tourism Alliance
USAID/ELE	USAID/Excellence in Labor and Environment
USAID/RED	USAID/Rural Economic Diversification Project

I. EXECUTIVE SUMMARY AND PROGRAM HIGHLIGHTS

The USAID/TNC Environmental Protection Program is a five-year project implemented through a cooperative agreement with The Nature Conservancy (TNC) and sub-awards with Dominican institutions: the Technological Institute of Santo Domingo (INTEC), Fondo Pro-naturaleza (PRONATURA), the Center for the Conservation and Eco-development of Samaná Bay and its Surroundings (CEBSE), Dominican Institute for Integral Development (IDDI) and Dominican Foundation for Marine Studies (FUNDEMAR). The Cooperative Agreement for this program was signed on March 2nd 2009, and the project was formally launched on June 2nd 2009.

At the beginning of FY12, project description was amended and the USAID/Environmental Protection Program main objective became enabling the Dominican Republic's adaptation to climate change. To this end, the Program is working closely with the Dominican Republic Ministry of Environment and Natural Resources (ME), the National Council for Climate Change and Clean Development Mechanism (CNCCMDL Spanish acronym) and other government entities, both at the central and the local level. Assistance to the Council and the Ministry includes engaging key stakeholders in the initiative of developing tools (including legislation) to address long term impacts of climate change to the DR. Progress during FY 12, however, was impacted by the presidential elections and consequent change in administration.

At the beginning of FY12, the program conducted a national survey of knowledge and perception on climate change and used the results to develop an awareness campaign that uses TV, radio, newspapers and the internet to inform the public and call attention to the need for adaptation. The awareness campaign is issued by a local platform for climate action called CLIMACCION, and it's being implemented by TNC's local partner IDDI.

Building upon results from FY10 and 11, as well as technical assistance facilitated by the program, (such as: training of municipal staff, the province's environmental characterization study, KAP analysis for Samaná's protected areas; the Samaná Bay marine zoning proposal, assistance and training provided to local fishermen; the provincial environmental agenda among others), TNC and CEBSE are in the process of consolidating the necessary social basis to develop policy and planning instruments for GCC adaptation at the local level. One such instrument is the proposed land use and development zoning plan for Samaná province, which would be the first such plan in the Dominican Republic to include a climate change adaption and resilience approach.

The first community-based climate change adaptation network was formally established with 32 different community based organizations - representing popular neighborhoods of northern Santo Domingo. Following the series of trainings provided by partner IDDI participants formed working groups during which they discussed the possibility of creating a community network for adaptation to climate change, as a meeting place for various organizations, to stay updated and informed about climate change and its effects, and disseminate this information in their communities. In a participatory manner they determined how this network would work, who would be part of it, and how it would continue the training on adaptation to climate change. A protocol was drafted and signed to formalize all of this, thus creating the network. Representatives of this network are currently participating in the process of drafting the proposal of National Law on Climate Change in coordination with the CNCCMDL, The Nature Conservancy and IDDI.

An important output of fiscal year 2012 is the study “Critical Points for the Vulnerability and Variability to Climate Change in the Dominican Republic and its Subsequent Adaptation” conducted to evaluate the Dominican Republic’s vulnerability to climate change. It is a baseline analysis, which used provincial biophysical and socioeconomic variables as proxy indicators to the three components of vulnerability according to the IPCC (sensitivity, exposure and adaptive capacity), for predetermined sectors (agriculture, drinking water, tourism, energy, national system of protected areas and human settlements). It provides a basis for policy and planning decisions for key social and economic sectors of the Dominican Republic and its dissemination is a key part of the program’s awareness campaign that has taken place during this year.

In order to complement this assessment, evaluate potential impacts of climate change and provide sound information for decision making, the USAID TNC Environmental Protection Program is conducting hydrological modeling of four watersheds of the Dominican Republic. The selected watersheds are the ones that provide fresh water for the two largest cities of the DR –Santo Domingo and Santiago- as well as drinking and irrigation water for a combined population of close to 5 million people. It is expected that human settlements vulnerability will be highly affected by water availability, and information for planning is fundamental to develop proper administration instruments. This work is being conducted in collaboration with the National Institute for Hydraulic Resources, the Environment Ministry and the CNCCMDL, an.

The reef monitoring process started in the Bayahibe area continued in FY12 with the pilot testing installation of 6 coral nurseries frames in selected sampling points. Coral growth has been reported, however small. Reef monitoring and nurseries installation will continue during FY13, building upon information gathered, and the support and involvement of the Bayahibe community and local tour operators. USAID-TNC’s EPP plans to extend coral reef and coastal protection work to Samaná in FY 2013. For Samaná, the program is implementing an integrated approach to climate change adaptation, combining ecosystem based adaptation, community based planning and governance, with capacity building and policy development. Work will continue in the Southeastern reefs to identify resilient species and initiate coral restoration efforts

During FY 12, USAID-TNC EPP continued to work in improving management of key natural protected areas in Samaná, Valle Nuevo and Parque del Este. The ecological restoration process undertaken by PRONATURA in specific areas of Valle Nuevo National Park is practically concluded, and efforts are being made to ensure follow-up and sustainability of this intervention. A milestone for FY12 was the signing of a co-management agreement between the Ministry of Environment and a National NGO for 8000 ha within Valle Nuevo National Park, USAID-TNC EPP partners are part of the co-management council, promoting sustainability of the program’s achievements in improving management of this critically important conservation area. The Nature Conservancy and PRONATURA have found ways to continue to actively participate in park’s management and other initiatives.

PRONATURA has also received additional funding from the Critical Ecosystems Partnership Fund (CEPF) to assess the agricultural impact in this park and National Park La Humeadora, this work ties into USAID-TNC EPP work to improve fresh water security for the City of Santo Domingo as part of its adaptation work. La Humeadora NP covers the headwaters for two major sources of fresh water for Santo Domingo: Rio Nizao and Rio Haina.

Other initiatives to support the protected areas national system include the participation of EPP implementing partners in management plans drafting and revisions, complementary studies and assessments to facilitate decision making process in selected areas, evaluation of management effectiveness, park ranger training among other.

A total of 504 people were trained in several topics related to biodiversity conservation and management, including a training of trainers on Protected Areas management facilitated by Colorado State University with USAID-TNC EPP support, training for park rangers of coastal-marine protected areas, and use of GIS technology, among other topics. Complementarily, forest fire control and invasive species management have been one of the main capacity building topics for training, continuing work initiated in 2009.

The program has continued work on improving management of the marine mammals' sanctuary and monitoring of whale watching season, as well as work on sustainable fisheries in the Samaná Bay. A national conference on sustainable management of coastal and marine resources, and its relationship with climate change adaptation was held in Punta Cana, with the support and participation of Columbia University and Punta Cana Foundation.

Ecological restoration work for micro watersheds in Valle Nuevo has nearly been completed.

Also during FY12 a national seed bank for native and endemic trees species started operations with USAID support thru EPP and USFS. The National Environmental School in Jarabacoa continues to operate and is in the process of completing its accreditation as a formal education institution in the DR, which will ensure the sustainability of the initiative.

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III. Introduction

The Environmental Protection Program was initially conceptualized to promote a more effective protection of environmental quality and biodiversity conservation, with a focus on the strengthening of institutional capacities, both public and private. During the first two years of implementation the Program did precisely that, by emphasizing support to the Dominican Republic Ministry of Environment and Natural Resources (Environment Ministry), selected municipal governments and civil society organizations. Support to the Ministry intended to enable it to fulfill the commitments made by the Dominican Republic under Chapter 17 of the Central America-Dominican Republic-United States Free Trade Agreement (DR-CAFTA), and to improve biodiversity conservation thru the improved management of protected areas and other areas of interest to conservation.

As of fiscal year 2011, program activities gradually shifted to focusing on promoting Climate Change Adaptation thru institutional strengthening, technical assistance, ecosystem based adaptation, policy development and public awareness and participation. Additionally, the program has continued to work reducing threats to biodiversity conservation in the Dominican Republic, consolidating work started in FY09 in key protected areas. The Program's methodological approach of strengthening key stakeholders, producing sound information for decision making and support to implementation has remained the same.

The Environmental Protection Program is structured in 5 thematic components that describe the different interventions to be undertaken in pursue of program's goals. The components are: 1) Institutional strengthening; 2) Biodiversity conservation; 3) Market based conservation; 4) Improved environmental performance of the private sector, and 5) Ecosystem based adaptation to global climate change. The project components complement one another in order to achieve the program objectives, which are the following:

- To demonstrate ecosystem based adaptation interventions in vulnerable locations, working with local institutions to build their capacity to replicate these experiences.
- To create an enabling environment for adaptation of Dominican society to climate change by strengthening DR institutions, both public and private, for the interpretation of climate information and the development of policies that enable climate adaptation approaches.
- To foster public/private partnerships promoting improved governance and sustainability of climate change adaptation strategies.

The first program's component seeks to ensure proper environmental governance that can be sustained beyond the program's life span. Since late FY11 the program aims to improve the DR-Gov capacity to effectively incorporate climate change data into medium and long term planning, reducing the overall impact on the country's economy and on the wellbeing of the Dominican people. Complementarily, awareness raising of civil society is fostered by the program. Information gathered through the survey called "Knowledge and Perception Levels of the Dominican Population related to Climate Change" - elaborated by Gallup – shows that general comprehension regarding climate change and its impact is limited. This component mostly focus in the promotion of public investments in climate change adaptation through institutional strengthening and the development of policy instruments for biodiversity conservation, environmental management and more recently climate change adaptation.

The second component of the program pursues biodiversity conservation of key ecosystems of the Dominican Republic. Biodiversity conservation in a small island nation is a key aspect of the sustainability of ecosystem services- such as freshwater availability- and consequently its socio-economic welfare. Some of the ecosystems assisted by the program are currently important revenue sources for the Dominican government, and appropriate management can catalyze the economic wellbeing of surrounding rural communities. Additionally, addressing threats to biodiversity can improve the protection of ecosystems services critical to adaptation. In order to do so, the USAID-TNC EPP continues supporting the operational capacity of local conservation partners, both from the public sector and the civil society.

Due to the original focus of the program, components 3 and 4 of the program relate to the role of private sector in environmental management systems, and their involvement in environmental governance. Public and private agreements that promote efficient and clean production processes can catalyze the country's environmental governance. Economic driven governance can facilitate sustainability of the so called "brown agenda" consequently reducing threats to biodiversity and potential damage to local ecosystems. Assistance in these two areas concluded during FY12; however the program continues to monitor Ministry of Environment's accomplishments and endeavors on this subject.

Component 5 refers to climate adaptation related assistance provided by the program. Local stakeholders – both public and private – can promote adaptive measures in a more agile and specific manner than central governments, through concrete adaptive demonstrations projects that can gain acceptance from the general public and stimulate its replication in other areas. Thus, local governance is as important as national governance, and more effective in terms of short term impacts. The USAID-TNC EPP is working at the local level in Samaná and Bayahibe (La Altagracia province) to develop locally driven adaptive initiatives. Science based information for decision making is supported by the program; complementarily, the permanent presence of local implementing partners facilitates the sustainability of initiatives undertaken and the purpose to serve as demonstrations for stakeholders of different communities which applies not only to climate adaptation but also to biodiversity conservation.

This report organizes the "major outputs and progress" narrative section by intended impact rather than by component, in order to facilitate understanding of program outcomes and impacts. The way outputs are presented relates to the strategic approach shown above and intends to showcase the continuity and coherence of all interventions, instead of categorize them into components. After the narrative, a table summarizes the activities and project outputs by components in order to provide a complete overview of work carried out during the reporting period as well as tracking interventions according to the approved work-plan.

IV. MAJOR OUTPUTS AND PROGRESS

4.1. Building social capital and governance at the local level:

Since its inception, the Environmental Protection Program has worked intensively in creating and strengthening capacities – both at the national and local levels – to promote improved governance and facilitate environmental enforcement. Governance relates to coherent management structures under a clearly defined policy guide, allowing the participation of all stakeholders involved in the governed area. Increased capacities have been consistently promoted through training, policies and procedures definition and drafting, institutional strengthening and promotion of participatory processes.

Two important achievements were reached in terms of governance during FY12. The first one is the signage of Samaná's province social pact for sustainable development, which is based in the Environmental Agenda drafted under CEBSE's coordination. The pact was signed by the Environmental authorities (both local and national) headed by the (former) Environment Minister, and local municipal authorities. It is an agreement of all stakeholders in the province to implement the commitments set out in the Provincial Environmental Agenda.

Samaná municipalities have received technical assistance, equipment and training to staffers through the USAID-TNC Environmental Protection Program since 2010; previous results include the formation of civil society organizations known as "Municipal Environmental *Fora*", as well as the passing of several environmental ordinances from the city councils.

Building upon those results as well as technical assistance facilitated by the program, such as: training of municipal staff, the province's environmental characterization study, KAP analysis for Samaná's protected areas, the Samaná Bay marine zoning proposal, assistance and training provided to local fishermen – among others, TNC and CEBSE are in the process of consolidating the necessary social basis to develop policy and planning instruments for GCC adaptation at the local level. Starting in Q1 FY13 a proposal for land use and development zoning plan for Samaná province will be developed; the contracting process has been completed and the selected consultant firm will start ground work on October 2012. This would be the first plan in the Dominican Republic to include a climate change adaption and resilience approach. The proposal is expected to be ready by March 2013.

The second important achievement was the establishment of the first community-based climate change adaptation network. Conformed by 32 different community based organizations, this is an example of community led governance that the USAID-TNC EPP seeks to promote, in order to guarantee sustainability and capacity transfer. Following the series of trainings provided by partner IDDI participants formed working groups during which they discussed the possibility of creating a community network for adaptation to climate change, as a meeting place for various organizations, to stay updated and informed about climate change and its effects, and disseminate this information in their communities. In a participatory manner they determined how this network would work, who would be part of it, and how it would continue the



Community network for CCA. Photo: @IDDI

training on adaptation to climate change. A protocol was drafted and signed to formalize all of this, this creating the network. The program seeks to promote similar initiatives in other areas of the country during FY13.

During the first half of FY12, the USAID-TNC EPP completed work that was already underway to finalize the environmental management component conducted by partner INTEC. The first national encounter of Mayors of the Dominican Republic took place at INTEC, with the purpose of formally issuing the second edition of the Guide for Municipal Environmental Management and the Guide for Good Practices in Municipal Markets and Slaughterhouses. The drafting of these documents is the result of joint efforts between the Ministry of the Environment and the USAID-TNC Environmental Protection Program. The activity set the basis for establishing collaboration with the Federation of Dominican Municipalities through a *Memorandum of Understanding*. The collaboration pursues the creation and delivery of a Certificate course (80 hours of training) in Municipal Planning with climate change adaptation approach, which will be carried out in FY13.



FEDOMU'S PRESIDENT ADDRESSES THE AUDIENCE OF MAYORS AND GENERAL PUBLIC. MAYORS FROM SABANA DE LA MAR AND SAMANÁ SYMBOLICALLY RECEIVE THE DOCUMENTS ISSUED DURING THE ACT, DELIVERED BY DUTY GREENE FROM USAID AND ZOILA GONZALEZ VICEMINISTER OF ENVIRONMENTAL MANAGEMENT. PHOTO: @INTEC.

The program has carried out several informational sessions and seminars about climate change and climate change adaptation during the reporting period. One of the main audiences have been the municipalities of Samaná (six in total), Bayahibe and Constanza, where USAID – TNC EPP interventions are taking place. These informational sessions were used also to determine baseline knowledge of these municipalities regarding climate change and propose a comprehensive educational and extension program.

4.2. Building public awareness and policies

Governance is fostered by public awareness and understanding of specific issues. The “Knowledge and Perception Levels of the Dominican Population related to Climate Change” survey supported by the USAID-TNC EPP and UNDP, and conducted by Gallup Dominicana for the National Council for Climate Change revealed that most Dominicans obtain climate change information from television, radio, and newspapers. Climacción, a network of both public and private institutions that discuss climate change issues to promote action - coordinated by implementing partner IDDI, launched a mass media campaign for climate change adaptation awareness at the national level under the USAID/TNC Environmental Protection Program.

The campaign, formally launched on September 27¹, is titled “El clima sigue cambiando, no podemos seguir esperando” (The climate continues to change, we cannot continue to wait). Its goal is to create more



conscience among the Dominican population on the importance of climate change and its economic, social, and environmental implications. The campaign is also a call for action to implement climate change adaptation activities considering the country’s high vulnerability. The campaign refers to the Climaccion website for additional information on the topic, and to access other links related to climate change in the DR and elsewhere.

The launching was attended by public institutions, including the National Office for Meteorology, Ministry of Agriculture, and local organizations and NGOs, such as the Dominican Consortium of Tourism Competitiveness, education establishments, international cooperation institutions, embassies, and media/journalists. Complementarily, several talks and encounters on the topic have been carried out during fiscal year 2012, focusing on specific regions of the country and productive sectors.

4.3. Strengthening local partners and stakeholders

- **Implementing partners**

The institutional strengthening of the Program’s local implementing partners is essential to ensure permanence and sustainability of actions and demonstrations projects initiated during the program since their presence in the territory and their work areas will outlast the program. They have steadily improved their internal processes and procedures, which in turn will allow them to secure other sources of funding, in order to continue their work beyond the USAID-TNC EPP project life. Recent program’s internal evaluation has shown the interest of these partners to continue the climate change adaptation line of work undertaken with the program.

Building upon each partner’s strength and area of influence, the continuity of demonstrations interventions can be guaranteed and replicated in different scenarios. This is the main reason why the program has devoted efforts to the institutional strengthening of local implementing partners. Other partners and stakeholders are also strategic to foster the necessary behavioral change required to adapt to climate change most probable impacts.

¹ Airing through local radio stations and tv channels, as well as newspapers publication started on August 2012.

Strengths of the EPP's implementing partners



The Nature Conservancy

- Leading conservation organization
- Technical capacity and knowledge in ecosystem based adaptation
- Water funds development as a tool for sustainability



CEBSE

- Key stakeholder in Samaná. Strong social capital already built.
- Can promote and participate adaptation processes beyond program's lifespan.



FUNDEMAR

Leading Dominican marine research entity
Key stakeholder in Bayahibe with social capital built.
Capacity to Intervene in pilot projects and replicate



IDDI - Climacción

Leader in participatory processes and grassroots organizations involvement
Strong social capital built in Santo Domingo, where main decision makers are
Ability to create awareness



PRONATURA

Strength in mountain ecosystems conservation and management
Drafting the first management plan for a national park with adaptation considerations



INTEC (was a partner until March 2012)

Leading superior education entity, natural multiplier and capacity builder
Coordinating the first Environmental Network of Dominican Universities

• Private sector

Partner FUNDEMAR continued to work on a private sector based initiative called EcoBayahibe, which groups tour-operators, diving schools and other touristic stakeholders in the Bayahibe area. The EcoBayahibe movement is a comprehensive sustainable tourism initiative in the Eastern National Park and nearby protected areas that was made possible with IDB funding. It is an alliance of tourism stakeholders of the Romana-Bayahibe destination which fosters the implementation of sustainable touristic practices in this destination, in harmony with the natural and cultural local assets.

The target is to promote a positive experience exchange between visitors and residents and having an equitable share in profits for all stakeholders and re-investment in local natural capital maintenance and preservation. These stakeholders are implementing good practices in the use of natural capital on which their livelihood

depend, and also collaborating voluntarily to monitor temperatures in adjacent coral reefs, to contribute to the reef monitoring initiative. This entity creates long term opportunities for work related to reef conservation and restoration in the area, given the importance of these for tourism in the destination.

Since the beginning of the program, assistance was provided to the Environment Ministry to promote and foster an improved environmental performance of the private sector in general. Assistance was provided to develop the necessary procedures and regulations to promote voluntary sustainable production agreements and to carry out assessments of environmental management performance of selected companies- among others. This line of assistance ended during early FY12, due to program's focus shift towards climate change adaptation.

As it was intended since the inception, the Environment Ministry took ownership of the initiative and during reporting period has achieved three voluntary sustainability agreements with different business associations: the Association of ecological banana producers in the Northwest (BANELINO -392 member-) the Dominican Association of swine farms (ADOGRANJA -32 members-), and the Association of Industries and Businesses of Haina and the South Region (AIEHAIN -70 members-). All three agreements have the purpose of increasing competitiveness and environmental performance. The parties committed to plan and implement actions that increase productivity, prevent and minimize negative environmental impacts and reduce health risks. The Environment Ministry's intention is to pursue further agreements with other private stakeholder across the national territory.

Also, on March 2012 the Ministry of Environment and Natural Resources and the Ministry of Industry and Commerce, with support from the USAID-TNC EPP, delivered the National Cleaner Production Award, as part of the actions contemplated in the National Policy on Sustainable Consumption and Production. During the activity, were awarded the companies Cemex Dominicana, Brugal Distillery and Company and the Group Punta Cana with the award for Excellence in Cleaner Production in the categories Material, Energy and Water, respectively. In addition, honorable mentions were granted in all categories. The category Excellence in Cleaner Production for a Non-Governmental Organization was awarded to the project "Community hydro-electrical plant of Fondo Grande" of the Development Council of Fondo Grande. The purpose of this award is to promote and encourage the implementation of cleaner production strategies in the DR, encourage competitiveness, good production practices and continuous improvement.

- **Alliances and networking for climate adaptation**

IDDI has been working intensively in strengthening the members of their Climacción platform to develop leadership skills necessary to raise awareness about climate change adaptation in the different sectors they operate. Complementarily conferences have been held periodically with different stakeholders from the private sector to awareness on the topic. The objective is to motivate the different stakeholders to investigate further about the impacts that climate change will have on their respective sectors and to take actions about it. Information about the specific conferences and sectors addressed will be provided in a table summarizing all activities carried out during FY12.

- **Academia and Media as key stakeholders**

The Environmental network of Dominican Universities (RAUDO) was officially launched during February. Partner INTEC lead the initiative and acted as host of the formal launching ceremony. The network's objective is to effectively articulate the participating universities to develop and disseminate knowledge and information regarding environmental sustainability through education, research and extension. This network has been an

objective of USAID - TNC's Environmental Protection Program. RAUDO pursues to create a space for discussion and organize activities related to environmental issues in each participating university; implement an environmental agenda that develops awareness, dissemination, training and specific practices that promote environmental sustainability; and develop outreach mechanisms to disseminate academic offerings that incorporate environmental sustainability into their *curricula*.



Formal launching of RAUDO. Photo: @INTEC

On February 2012 another network was launched: the Network of Environmental Journalists. This was an unplanned result of the certificate course on environmental journalism conducted by INTEC in coordination with the Environment Ministry and the Global Foundation for Democracy and Development (GFDD). The Network seeks to promote integration, exchange and cooperation between Dominican journalists, strengthen their capacity to address issues related to environment and climate change, and promote academic expertise of its members.

- **Central government**

Support to strengthen the Environment Ministry and its ability to guarantee adequate levels of environmental protection and biodiversity conservation continued during FY12. Collaboration with the USFS has been key for the successful establishment of the first national seed bank for native and endemics trees. During FY12 two visits took place:

- a. To contribute developing a Forest Resources National Agenda, a team travelled to the Dominican Republic to continue installation of equipment in the DR National Seed Bank, and participate in the strategic planning workshop and to evaluate future collaboration. The USFS mission also had the opportunity to visit field sites for seed collection in different locations of the country.
- b. On September, a mission of the U.S. Forest Service visited the Dominican Republic and dialogued with the Dominican Forestry roundtable as well as a seminar with other forestry stakeholders to promote best practices and sustainable use of forest re-sources in the Dominican Republic.

Complementarily, a team of Dominican forestry technician traveled to Georgia to receive training on seeds' handling. Details are providing in the corresponding section. The seeds bank also received support from the Program in the form of equipment donation to ensure proper operation. Once the bank is fully operational, restoration and reforestation initiatives- as well as commercial plantations - in the country will be supported by its services. Endemic and native plants are more likely to adapt to the adverse effects of global climate change.

The CNCCMDL also received equipment donations for their documentation center, as well as accompaniment and technical assistance for information gathering, participation in policy development processes, support to complementary assistance projects and technical support in general.

4.4. Trainings and capacity building

During FY12 USAID-TNC EPP carried out numerous training and educational activities, focusing in biodiversity conservation and climate change adaptation. Emphasis on multipliers has been one of the aspects of training provided in order to guarantee installed capacity for the future.

Partner INTEC finalized its sub-agreement with the conclusion of the environmental monitoring courses and the certificate course on environmental journalism. However, support to strengthen the Environment Ministry and its ability to guarantee adequate levels of environmental protection and biodiversity conservation continues. Training for trainers in protected areas management took place in the Environmental school of Jarabacoa with the purpose of having a group of trained personnel that can periodically teach technicians and park rangers, considering the personnel rotation in such positions when administration changes occur. Also, comprehensive program in forest fire control took place and finalized during FY12. A summary of all training courses provided during fiscal year 2012 is provided in the following table:

Table: Summary of training courses provided during fiscal year 2012		
Topic / Specific subject	Audience	Purpose of training
Biodiversity conservation		
Training ² on forest trees' seed handling and Seed Bank Management (included trips to the USDA Forest Service National Seed Laboratory in Macon, Georgia, USA.) 3 modules.	Personnel of the Viceministry of Forestry resources and the Nigua Seeds Bank. 6 people. (4 men and 2 women). ³	Transfer of techniques used in seed classification, processing, quality assurance, germination and quality control laboratory, to guarantee proper operations of the Seeds Bank. Instructions on seed bank equipment installation, maintenance and use.
Training of Trainers course in Protected Areas Management	30 Environment Ministry career staffers, but also USAID-TNC's EPP implementing partners CEBSE, PRONATURA and FUNDEMAR, as well as other government institutions (8 women)	To improve participants' capacities as trainers in future training events for park and forest guards, as well as other staff involved in protected areas management.
Training course for trainers on management and control of lionfish (collaboration with UNEP's regional project entitled "Mitigating threats of invasive alien species in the insular Caribbean").	A total of 24 participants from the Environment Ministry and other government institutions as well as local environmental NGO's	To install local capacity to manage and control lion fish presence in Dominican shores and the ability to replicate
Training on Marine Invasive Species Management: Focus on lionfish.	Five communities, two linked to Del Este National Park and three in Samaná area. In total 127 persons were trained (40 women and 87 men).	Lion fish ecology, its impacts on Caribbean ecosystems and methods of control.
Community Environmental Education in Valle Nuevo	9 female community members ⁴ of El Castillo and El Convento.	To educate regarding the benefits of natural resources conservation, the effects of forest fires and the risks of climate change. Handling, processing and economic use of solid waste to generate income.
Fire Ecology and its relation to climate change	26 representatives of the Environment Ministry and staffers from local development NGO's such as Fundación Progressio, Sur Futuro, IDIAF and The Nature Conservancy. (6 women)	To train participants on: a) Integral fire management, integrating fire ecology, culture and fire techniques; b) patterns of forest fire and vegetation coverage and foreseen tendencies in climate change scenarios; and c) ecological, economic, environmental and social impacts of forest fires.
Training on forest fire management	Brigades of the Environment Ministry and the Quisqueya Verde plan, other related	Transference of basic techniques in fire control and suppression.

2 The three first courses are part of a program to create capacities to operate properly the Nigua Seeds Bank. Six persons are the group that attended all training components – 2 of them in the U.S., and this is the number reported for monitoring purposes.

3 Six more persons were trained in module 2, when the activity occurred in the DR. Only 6 are reported taking into consideration attendance to all 3 modules.

4 Nine women completed the five modules of this training course. However assistance was much larger for specific modules, having in most of them approximately 20 persons.

Table: Summary of training courses provided during fiscal year 2012

Topic / Specific subject	Audience	Purpose of training
	local entities. 4 courses in different locations -117 people.	
Training for coastal marine park rangers	20 Park Rangers of Parque Nacional del Este, Los Haitises, Santuarios de Mamíferos Marinos la Navidad y la Plata, Estero Hondo and Jaragua. All men.	Transfer basic competencies for park rangers operating in coastal marine parks,
Introduction to Ecosystem Restoration Practices. (Complementary module to Freshwater ecosystem restoration taught in FY11).	Scientists working at Government Research institutions, conservation practitioners and park rangers in the Ministry of Environment. 24 participants (7 women)	Learn the principles of ecosystem restoration and best management practices that could be applied in Dominican Republic freshwater system in the mountains.
Climate change adaptation		
Certificate course on land management for climate change adaptation	39 Technical staffers ⁵ of government institutions such as: Ministries of Environment and Agriculture, INDRHI, CONATEF, IAD, IDIAF, and other entities. Two courses.	Understand the indicators and factors that characterize desertification, monitor and implement practical measures for agro-ecological rehabilitation in the context of climate change
Strategic planning for climate change adaptation. University of Washington online training course	Six TNC and other implementing partner's staff participated (5 women)	To habilitate EPP's technical personnel to develop a more comprehensive training and awareness raising plan on climate change adaptation, and to support other initiatives to be undertaken by the program and other projects if needed.
Training in Atlantic and Gulf Rapid Reef Assessment –AGRRA- methodology	11 representatives of local environmental NGO's, and environmental government entities, such as the National Aquarium and CIBIMA UASD (2 women)	The AGRRA Protocol has been widely used to assess over 800 reef sites in the Western Caribbean, through various indicators. To be used in reef monitoring in the DR
Environmental Management		
Basic training on on basic cartography, the use of GPS and GIS – 3 courses	60 Provincial and municipal technicians of the Environment Ministry, Technical environmental management units of municipalities and local NGOs(15 women)	Capacity building for environmental processes (monitoring, assessment, environmental permits, etc.) at the local level.
Certificate course on Environmental Journalism	35 journalists from different local media	Teaching of basic knowledge on different environmental topics including climate change to facilitate communication with general public.
Thematic interpretation for Touristic guides of Aguas Blancas	16 local guides – from nearby communities	Basic environmental interpretation skills for tour guides.
Training course in environmental monitoring - INTEC	43 Technicians of environmental management – Ministry of Environment (12 women) – 2 courses	Basic competencies in environmental quality monitoring. Use of specific monitoring equipment.

In total, 593 people were trained during FY12, of which approximately 28% were women.

Complementing training activities, several workshops and informational sessions and exchange of experiences were promoted by the Program during fiscal year 2012:

- 135 municipal representatives and local people received an introduction on the basic concepts of climate change.
- 35 journalists, on the importance of properly communicating news regarding climate change and its impact.
- The educational workshops carried out with community based organizations of Northern Santo Domingo, covering basic aspects of climate change and its impact. These workshops made possible the creation of the community network for climate change adaptation.

⁵ 45 completed all training modules, but only 39 delivered final research work required to grant the *diploma*.

- On November 2011 took place the workshop on Climate Change, climate policies and ecosystem-based adaptation with the goal of unifying representatives of the Dominican Government, private sector, political parties, nongovernmental organizations and other stakeholders and develop an overview of the current situation, change information climate change and adaptation actions to climate change in the Dominican Republic, and identify critical areas for future adaptation actions in the following sectors: coastal-marine, agriculture, and water. Based on the actions identified in the "National Action Plan for Adaptation to Climate Change in the Dominican Republic" a matrix of priority actions for adaptation was developed, highlighting those responsible and involved, funding sources, policies and capacities (existing and / or required). The workshop concluded with the identification of adaptation strategies to be implemented in the short term for the coastal-marine, water and agriculture sectors. 90 persons attended.
- Workshop with legislators titled "National Dialog on Policies and Legal Instruments to Adapt Biodiversity Management to Climate Change" took place at the Senate of the Dominican Republic. Organized in collaboration with other institutions such as: Lawyers for the Protection of the Environment Institute (INSAPROMA), The Environmental Law Institute (ELI), The Ministry of Environment and Natural Resources, Universidad Autónoma de Santo Domingo, The Dominican Academy of Science, The Jaragua Group and USAID -TNC Environmental Protection Program. 65 congressmen attended.
- Several informational sessions for the 26 representatives of the institutions that conform the Climacción platform. Topics covered include the basic science of climate change and the vulnerability.

Over 300 persons were reached through these informational sessions, and received basic information regarding climate change and its impacts. It is foreseen during FY13 to further work with the municipalities and other key stakeholders, through a training strategy on specific climate change and adaptation subjects pertinent to each target group.

To complement all the above, networking and exchange of experiences was promoted by the Program during fiscal year 2012. The goal was to strengthen the information exchange and relations between government counterparts, local implementing partners, and civil society representatives.

- On November 2011 - the National Water Board coordinated by the National Institute for Potable Water and Sanitation-INAPA-hosted a national meeting on "Water Resources DR: past, present and future." Indhira DeJesus, Program Director, participated in a panel on the availability and quality of drinking water in the country and Montserrat Acosta Morel, participated in a panel on climate change and its impact on water resources with the National Council Climate Change and CDM, the Ministry of Economy, Planning and Development and the Ministry of Environment and Natural Resources.
- During April the first Dominican conference on Sustainable Management and Adaptation of Coastal – Marine Resources took place in Punta Cana. This was a joint initiative of the USAID-TNC EPP, the Ecological Foundation Puntacana and Columbia University, with the aim of facilitating exchanges to expand and improve coastal marine work in the Dominican Republic.
- On November 2011 took place the Workshop with the private sector (organized in collaboration with former RENAEP): "Climate Change: the need to adapt. Strategic response: adaptation of the private sector" The objective of this workshop was to share information about Climate Change in general, and about entrepreneurial leadership in adaptation to climate change, including initiatives undertaken by the private sector in the Dominican Republic and in the United States.
- From May 29th to 31st, 6 representatives of the USAID-TNC Environmental Protection Program attended and participated in the 2nd Climate Change International Conference: Adaptation Futures, in Tucson, Arizona, along with members from four local partners (Ministry of Environment, National

Council for Climate Change and CDM, FUNDEMAR, and CEBSE). TNC's Climate Change Adaptation Specialist, Montserrat Acosta Morel, Ph.D., delivered a presentation titled "Climate Change Vulnerability of the Dominican Republic: Prioritizing Ecosystem-Based Adaptation Actions" presenting preliminary results of the climate change vulnerability assessment for the DR with recommendations for future action. The conference presented the opportunity to learn what other climate change adaptation projects around the world are doing and to establish information exchange networks.

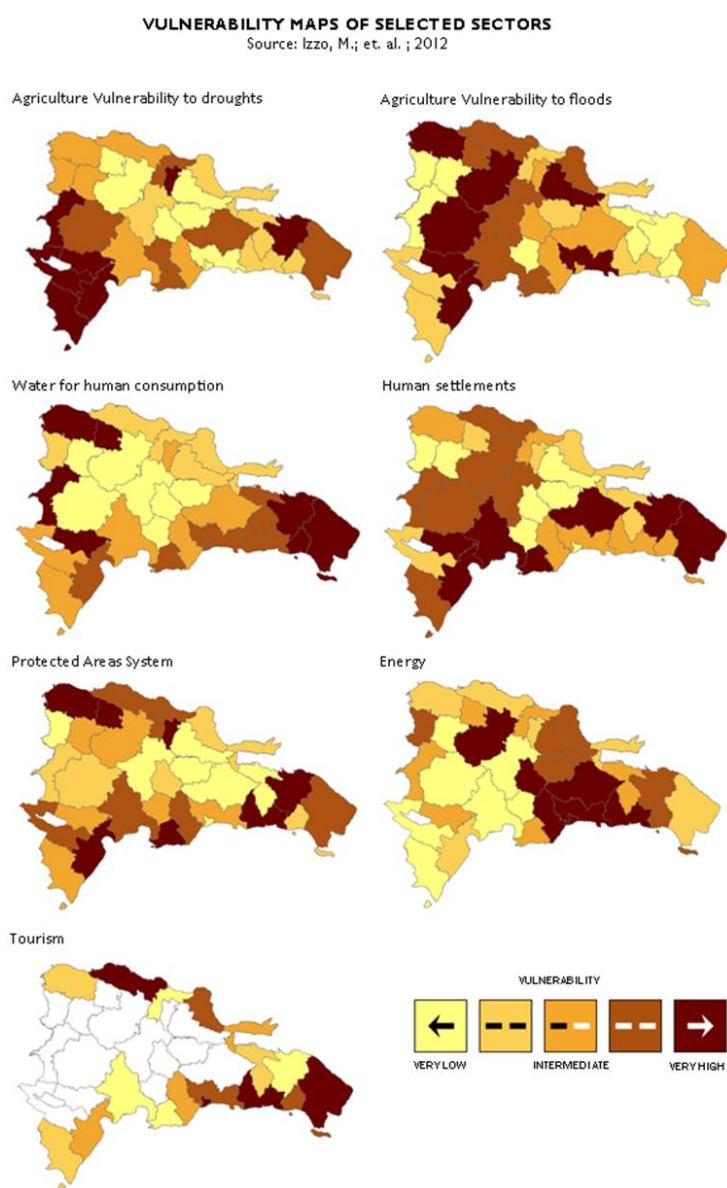
- Four presentations of the vulnerability assessments results in different regions of the country. The main goal of all these later activities has been to create public interest in climate change and its potential implications for the DR in order to create a basic information basis and also create the necessary environment to promote the development of policy instruments and specific strategies for adaptation.

4.5. Information, assessments and decision making

A. Critical Points for the Vulnerability and Variability to Climate Change in the Dominican Republic and its Subsequent Adaptation

To evaluate the Dominican Republic's vulnerability to climate change, the Instituto Dominicano de Desarrollo Integral (IDDI) employed Fundación Plenitud under the USAID/TNC Environmental Protection Program to develop the study "Critical Points for the Vulnerability and Variability to Climate Change in the Dominican Republic and its Subsequent Adaptation". It is a baseline analysis, which used provincial biophysical and socioeconomic variables as proxy indicators to the three components of vulnerability according to the IPCC (sensitivity, exposure and adaptive capacity), for predetermined sectors (agriculture, drinking water, tourism, energy, national system of protected areas and human settlements).

Results show that the southern provinces are highly vulnerable; this is the result of a confluence among low-income populations, which have been hit by devastating storms, degraded soils, and land that is highly susceptible to drought. The province of Santo Domingo is the area with the highest population density throughout the territory, where most of the labor, services, and tourism attractions, among others come together.



Finally, the Eastern region, which currently hosts many international tourists, is vulnerable to meteorological-climatic impacts and sea level rise, especially due to the potential adverse impacts to hotel infrastructure built in the area and the health of tourists as well as the communities (diarrhea, malaria and dengue). The results findings have been widely presented to different audiences all across the territory: nine municipalities, stakeholders of the Eastern region, stakeholders of the northern region and also a Commission from the Dominican Senate. These will be used as input during the elaboration process of the Climate Change Law proposal led by the CNCCMDL, which the EPP will collaborate in drafting as of FY13.

B. Reef monitoring in southeastern shore – Bayahibe and Parque Nacional del Este

Starting on early FY12, monitoring began in southeastern reefs in order to determine: a) seasonal increase in sea temperatures and the impact this increase may have on reefs' health from the Bayahibe shore to Saona Island; and b) identify find reefs resilient to climate change and enhance adaptive management thereof and reef restoration and ecosystem-based adaptive management. Three types of monitoring have taken place:

- a. Sea surface temperature monitoring: Since last May, when temperatures began rising, FUNDEMAR started monitoring the temperature of the sea surface, which is a variable widely used as an indicator of possible heat stress for reefs (NOAA, Reef Base). To date there has been a monthly monitoring of variable length transects perpendicular to the shoreline, to cover the range in which the main reefs are being monitored.
- b. Voluntary temperature monitoring in touristic diving sites, by local diving operators. After presenting local divers the project scope and the potential impact that climate change could have on reefs (and subsequently on their livelihood) local divers voluntarily decided to collaborate with FUNDEMAR carrying out temperature monitoring in diving sites. They have provided a database 347 records, corresponding to 134 days of data measured during the one year. This is tremendously helpful since FUNDEMAR's capacity doesn't allow them to cover these many spots. This database has provided a clear picture of the variation of temperature in the water column in most visited reefs of La Romana –Bayahibe destination.



Bleaching evidence in *Agaricia agaricites*. Photo: @FUNDEMAR

The results of these complementary samplings are maps which clearly show the steady increase in temperatures during the last six months; thermal stress is subjecting the reef to bleaching risk and coral mortality.

- c. Reef's health monitoring using AGGRA methodology: to date three samplings have taken place. These have helped to identify 26 species of coral reefs in the three sampling areas, of which - for its abundance - seven are key to the survival of the reef as an ecosystem, although most of them massive corals very resistant to waves. Of all, *Agaricia agaricites* constitute almost 40%

of the sample. So far, the bleaching was not massive in any of the three stations that are kept under monitoring, but unfortunately, the first symptoms appeared in *Agaricia agaricites*. No evidence of bleaching has been found in *Siderastrea siderea* and *Porites astreoides*. Although these are very preliminary results, is a positive development that these two species are showing resilience.

With all this information the testing phase of coral nurseries frames installment began in late FY12. Six structures were placed (4 traditional frames, 1 antenna shaped “tree” and one rope) to start coral survival testing. Two placements were selected after data analysis: Guaraguao and Cadaqués, at a 3mts depth approximately. To date most significant result is the growth of the surviving fragments of the first tests. However the fragments’ survival was really low in the first stage and the result was greatly affected by storm Isaac which displaced some of the frames of the most shallow test points (near Dominicus). This result has led the team to find new sites for nurseries, selecting deeper areas or areas somehow protected by the existing reef. Additionally, is helping identify which are the most suitable frame structures for conditions present in the area.

- **Hydrological Modeling of Selected watersheds**

To better understand climate change projections in selected watersheds of the Dominican Republic and their effect as well as that of land use /land use change, and with the intention of initializing the “Regional Platform for Water Resource Management”, Riverside Technology, Inc. has been contracted by the The Nature Conservancy to implement the Soil and Water Assessment Tool (SWAT). This tool will evaluate the aforementioned impacts in the river basins’ water runoff and sediment loads. The chosen watersheds are Yaque del Norte, for its importance in providing water to the northern provinces of the island; and Ozama, Haina, and Nizao watersheds, since they are the main water providers for the city of Santo Domingo.

It is expected that modeling and data analysis will be completed during Q3FY13. With this information, decision-makers will have more accurate scientific information regarding climate change projections, allowing them to implement the policies that most benefit the user groups invested in the watershed, considering climate change adaptation. Data will also be used in the development of the water funds platform.

In order to facilitate data gathering and transference of capabilities to Dominican human resources the National Institute for Water Resources—INDRHI and The Nature Conservancy signed a memorandum of understanding between both institutions (under the scopes of both the USAID-TNC Environmental Protection Program and the GEF/IDB Regional Water Funds platform). The objective of this agreement is to provide a mechanism for the exchange of experiences and transfer of technologies and knowledge, and a general framework of coordination to execute joint projects that promote capacity-building, institutional strengthening, research water-related topics, environmental management, and the conservation of watersheds. Using the hydrological modeling aforementioned as the basis for this agreement, information exchange has begun and training will take place during FY13.

4.6. Improving Protected Areas and key sites management

- **Ecological restoration in Valle Nuevo National Park**

The working group created in 2010 as a result of USAID assistance to evaluate the tourism potential of Aguas Blancas, congregated a diversity of actors that elaborated a strategic operational plan. PRONATURA and The Nature Conservancy, under the USAID-TNC EPP, have promoted, managed and participated in the operationalization of the action plan to improve park management of the Park, which has allowed consensus and negotiation between stakeholders in the implementation of conservation actions of the area.



Natural drainage restoration.
Photo: @PRONATURA

The ecological restoration process undertaken by PRONATURA in specific areas of Valle Nuevo National Park is one result of the operational plan. To date, after the finalization of all agricultural activities, natural drainage of Nizaíto has been restored (after the extraction of over 600 feet of PVC piping) and the natural re-vegetation of this area has been stimulated with the planting of 50,000 *Pinus occidentalis*, a few hundreds of *Garrya fadyeni*, and *Danthonia dominguensis*, the typical Valle Nuevo bush or “pajón”. The latter two were planted for their endemic dynamo-genetic condition that would assist in the displacement of an invasive grass introduced as a result of agricultural production. In the Aguas Blancas watershed – the other area of the restoration project – another 50,000 *pinus occidentalis* were planted.

Taking into consideration the presence of El Castillo – marginal agricultural community settled in the park, PRONATURA incorporated community members in the restoration process and put them in charge of monitoring and follow-up of trees planted; also provided basic environmental

awareness in community members through a training program described previously. Biodiversity conservation is closely related to governance.

To guarantee sustainability and increase expected impacts of restoration, PRONATURA coordinated with the Monitoring Committee of the Plan of Action (POA) planting additional 92,000 *Pinus occidentalis* and 12,000 *Garrya fadyeni* on the banks of rivers and steep slopes in Aguas Blancas watershed, on terrain previously dedicated to agricultural crops. Besides the direct restoration activities undertaken by PRONATURA in the microwatershed, stakeholders have complied with the agreement of not resuming agriculture in the 216 ha area, until agreement regarding agricultural frontier is formally reached. In Nizaíto, 58.85 ha were directly restored by PRONATURA.

A milestone for FY12 was the signing of a co-management agreement between the Ministry of Environment and a the Propagás Foundation (a Dominican NGO) for approximately 80 km² (8000 ha) for the central area and road access of Valle Nuevo National Park, where most visitation concentrates and impact. The Nature Conservancy and other Dominican institutions such as the Botanical Garden and the Fundación Moscoso Puello are part of the co-management council, promoting sustainability of the program’s achievements in improving management of this critically important conservation area. The co-management actions will also be based on the POA developed with USAID-TNC’s EPP support.

- **Signage for public use in three protected areas**



The Nature Conservancy and PRONATURA have also contributed with signage in Valle Nuevo National Park, Saltos de Jima National Monument and Salto de el Limón. The signage purpose is to facilitate the visitation experience to these protected areas and contributing to its management. Saltos de Jima’s signage will be installed during Q1FY13.

- **Management plans of other areas: leveraging resources**

FUNDEMAR has finalized the process to draft the first proposal of Marine Mammals Sanctuary management plan (matching project to the USAID-TNC EPP), and TNC has participated in the revision and updating process of the management plan for National Park Del Este conducted under the GEF SINAP re-engineering project, as well as the development of the management and monitoring plan for tourism activities within the park. These documents are currently under the final revision process for approval by the Ministry of Environment.

PRONATURA is executing a project called “Support the protection of freshwater sources in a changing climate”. This project is being executed in coordination with the Ministry of Environment and Natural Resources, with financial support from the Critical Ecosystems Protection Fund (CEPF) matching USAID-TNC’s EPP initiatives. A management plan with climate change considerations will be developed for National Park Montaña la Humeadora, using a participatory methodology integrating stakeholders and institutions present in the three provinces bordering the Park: San Cristobal, San Jose de Ocoa and Monsignor Nouel. La Humeadora National Park contributes to two of the watersheds which provide water for the greater Santo Domingo area – on of the most vulnerable human settlements according to the Vulnerability assessment.

- **Tourism Management and Monitoring Action Plan for Parque Nacional del Este.**

The Dominican Republic is one of the most visited Caribbean destinations. With over 5 million visitors per year, the tourism sector generates about 9 % of the total GDP, accounting for over 500,000 jobs in the country. At least, 1 of every 10 tourists in DR visits the national protected area system (SINAP), especially Del Este National Park (Parque Nacional del Este). According to the Ministry of Environment, 585,000 tourists arrived to the park in the year 2011, which represents about 60% of the total visitation to the SINAP.

Unfortunately, ribbon-development of coastlines, unsustainable fisheries and unregulated tourism operations are generating pressure on coastal and marine ecosystems that are already showing signs of deterioration. The Nature Conservancy recruited a sustainable tourism expert to design together with the Ministries of Tourism, Environment, communities and the private sector, a Tourism Management and Monitoring Action Plan

(TMMAP) to reduce or mitigate impacts generated by visitation in the park. Impacts on reefs by snorkelers and fishers, on the beaches by concessionaries and tourists, on the seas weeds and water quality by boats operation are being addressed and discussed with stakeholders. The main purposes of the TMMAP is to design strategies, prioritize them and agree on concrete actions to reduce current tourism impacts and create economic opportunities for communities and the region. In other words, the approach being used is to pay special attention to “governance” to engage a variety of local actors in developing and implementing the TMMAP for Parque del Este. Results so far include a Diagnosis of the present situation and draft of the TMMAP. The documents are under review by the main actors, and the action plan will be discussed with all interested parties during an upcoming workshop. Strategic plan is expected to be finalized during Q1FY13

- **Whale population study for Samaná Bay and monitoring of whale watching season**

During FY12's whale season a total of 299 monitoring trips were made with support from USAID-TNC EPP. The database of humpback whales that visit the bay of Samaná has increased its volume of information, with an unprecedented record of 529 sightings. The Ministry of Environment, local authorities and community Samaná currently have technical information available for decision-making on humpback whales management and associated ecosystems in Samaná Bay.



A JUVENILE BREACHES IN SAMANÁ BAY. PHOTO: @CEBSE.

To guarantee sustainability, not only of the monitoring process, but also of the enforcement process related to the whale's presence, CEBSE trained Local staff of the Ministry of Environment and Natural Resources (inspectors) and the staff of the vessels of the Boat Owners Association (captains and crew) to properly implement the official regulations for whale watching in the Marine Mammal Sanctuary of the Dominican Republic - Samaná Bay. As a result of raising awareness regarding the whales, the Boat Owners Association of Samaná Bay donated 512 monitoring trips during the 2012 season.

An unplanned result of the support provided to whale monitoring, is that the Dominican Republic influenced the decision of the International Whaling Commission during its 64th meeting, in order to eliminate whaling permit for Greenland and protect the Atlantic humpback whales that spawn in Samaná Bay. The results of the monitoring program was presented as a paper to the scientific committee of the International Whaling Commission, a representative of the Boat Owners Association and a representative of civil society (CEBSE) participated to support the Dominican Government representation before the Commission and the Scientific plenary meeting, which lead to the decision.

- **KAP's studies for Parque Nacional del Este and protected areas of Samaná Province**

Two Knowledge, Attitude and Perception assessment were developed during FY12. These include a valuation of economic benefits produced by Del Este National Park and six communities in Samaná. Results have been shared with a wide variety of stakeholders through various means (presentations, implementing partners, electronically). As a result of these presentations, KAP assessment recommendations have been inserted in the new (updated) management plans for three protected areas (Los Haitises NP, Del Este NP and La Plata and Navidad MMS). These kind of socio-economic assessments are also intended to encourage stakeholders to seek good governance in protected areas with equity, legitimacy, voice and accountability; which are principles established in the CBD Program of Work on Protected Areas.

SUMMARY OF PROGRESS DURING REPORTING PERIOD, DISAGGREGATED BY PROJECT COMPONENT

October 1st 2011 – September 30th, 2012 (*the first two columns correspond to FY12 work-plan*)

NO.	Component / Activities	Activities and progress during FY12
I. Institutional Strengthening		
I.1	Improving institutional capacities	
I.1.2	Develop and implement procurement plan to strengthen Environment Ministry and municipalities.	Most of the procurement for FY12 was completed early in the fiscal year. During this reporting period field measuring equipment for use in monitoring coral reefs off Bayahibe's coast has been acquired. Delivery of equipment and supplies for the Ministry's Native and Endemic Seeds Bank was completed in time for training carried out in April. Program administration continues to work with the Ministry of Environment and other sub-recipients to maintain and monitor inventory.
I.1.4	Support implementation of air and water quality regulation and monitoring	The water bodies' water quality classification map was prepared and is under revision by the Ministry of Environment. Supplies acquired by the USAID-TNC EPP for the USEPA donated air quality monitoring units were received, delivery has been halted pending solution of some issues identified during inventory monitoring by USAID.
I.1.5	Support the development of the provincial environmental agenda for Samaná	Agenda was drafted, and a social pact between main stakeholders of Samaná province has been signed, to promote agenda's fulfillment. As a result of this process, a working group to discuss specific topics has been formed, and currently Samaná's municipalities are pursuing the creation of a commonwealth of municipalities. The bidding process for the land zoning proposal with CCA approach took place.
I.1.6	Support the institutional strengthening of the CNCCMDL	Donation of equipment for documentation center. Presentation of the vulnerability assessment. On Oct. 2011 one TNC staff member accompanied the Dominican Republic's delegation to the AWG-LCA meetings in Panamá to contribute with following, informing, and sharing their expert opinions the climate change adaptation. These meetings concluded with a document describing the characteristics of the Adaptation Committee including party text from the developed countries and Group 77 and China that will be used for negotiations in COP17 in Durban, South Africa.
I.2	Improving Environmental Impact Assessment	
I.2.1. To I.2.5.	Finalizing activities under sub-component	
I.3.	Improving Municipal Environmental Management	
I.3.4	Technical support to selected municipalities in mun. env. mgt.	
I.3.5	Strengthen the Municipal Environmental For a (FAM).	The creation of two <i>fora</i> was supported during FY12, for a total of 5 <i>fora</i> created.
I.3.6	Disseminate the forthcoming "Guide for Municipal Management"	Guide was re-printed and distributed, along with the Manual for best practices in municipal markets and slaughterhouses.
I.3.8	Provide technical support to develop and implement pilot solid waste management programs in selected municipalities	Assessment and technical proposal for the Samaná province – 6 municipalities concluded and were presented to the 6 majors. Internal agreement was reached to find funding to implement proposal.
I.4	Enhancing citizen awareness and participation	
I.4.3	Develop and implement a communication plan on the EPP various	University certificate program on environmental journalism completed. Creation of the Network of environmental journalists. Two documentaries produced on work carried out in environmental management, trainings, and the forestry sector. Twelve

NO.	Component / Activities	Activities and progress during FY12
	components	monthly bulletins produced and shared with key stakeholders.
1.4.5	Support Environment Ministry in developing educational material and curricular content establishing the Nat. School for Environment and Natural resources	Follow –up for <i>curricula</i> adoption (proposed by the EPP) and the process of accreditation as a Superior Education Institute were delayed by the Ministry. Follow up to installation of biology laboratory took place. Notification received that the Ministry is currently contracting necessary infrastructure adjustments for the installation.
1.4.6	Develop and implement a communications plan to promote awareness and participation on climate change adapt.	Campaign was produced after consultation process. Distribution and airing began during July 2012. Formal launching to key stakeholders took place on September.
II. Biodiversity conservation		
2.2.	Improving protected areas management	
2.2.2	Strengthen conservation partners	19 different types of training took place during FY12, some of them were delivered more than once. Subjects included: forest fire management, planning for climate change adaptation, AGGRA monitoring among other. Details in table 1. CEBSE consolidated its internal policies and procedures during FY12. All implementing partners received support to attend key international events and networking Communities surrounding Valle Nuevo National Park Environmental received a comprehensive environmental education program
2.2.4	Improve site level management effectiveness in at least two priority PA's through targeted assistance. (Target areas include: All 6 protected areas in Samaná Province, Valle Nuevo National Park, del Este National Park and marine protected area del Sudeste)	The Ministry of Environment and Natural Resources is updating the management plan of the Parque Nacional del Este. TNC has been providing input to this process (Conservation Area Plans, KAP study, Economic Assessment of Tourism in Protected Areas). TNC technicians have also participated in workshops and meetings within this process. The new Management Plan is currently undergoing final revisions. The database of the whale monitoring program in Samaná has been updated with the latest data collected during Q2FY12. Catalog of tails was completed. The database has resulted in a paper to be presented to the Scientific Committee of the International Whaling Commission, promoting national position of 0 whaling. The Boat Owners Association of the Samaná Bay donated 512 monitoring trips of humpback whales during, 2012 season, representing a total of DOP 531,472.50 Drafting of the strategies and management actions for the marine mammal sanctuary is in its final stages; with support from UNEP, FUNDEMAR participated in the meeting for the socialization of cartographic products of Life Web Project (UNEP initiative for the conservation of marine ecological corridors, 11 around the world), of which the local initiate is part. The meeting was held in Panama City, on 21-25 May. During the 5th meeting of the Working Group of Samaná Bay, held on April 26, 2012, the marine zoning final results were presented to the Mayors of Samaná, Sanchez, Sabana de la Mar and Miches. The proposal was accepted and validated. The development of the Tourism Management and Monitoring Action Plan (TMMAP) for Del Este NP, with the participation of the Ministries of Tourism, Environment, communities and the private sector, concluded. Final phase of validation via public consultation will take place in Q1FY13. Management plan for Cabo Cabron could not be produced because of discrepancies in legal boundaries which are being revised by the Ministry. Reports from the assessments to evaluate the communities' level of Knowledge, Attitudes, Perceptions (KAP assessment) and economic benefits produced by Del Este National Park and six communities in Samaná have been shared with a wide variety of stakeholders through various means (local presentations, implementing

NO.	Component / Activities	Activities and progress during FY12
		<p>partners meetings, electronically).</p> <p>Findings and recommendations to insert the human dimension on the protected areas management have been shared with the Ministry of Environment and other key stakeholders such Funkarst Foundation, community leaders and municipal authorities of Samaná and Bayahibe.</p> <p>New interpretive signs were installed in Salto El Limón, Saltos de Jima and Valle Nuevo to control access to sensitive areas while informing visitors of the protected area natural and cultural values.</p> <p>RAPPAM monitoring will take place on mid-October 2012.</p>
2.2.5	Support the implementation of the Protected Areas System Master Plan	The Master Plan formulated with program's support was adopted as an official guidance document for the National System of Protected Areas following recommendations by a group of experts who reviewed its content.
2.2.8	Support the implementation of a national strategy for conservation of private lands	The Ministry of Environment enacted an official Regulation for Establishing Private Protected Areas in the Dominican Republic including two additional booklets for management plan and biological gap analysis. USAID-TNC EPP has been supporting this process thru technical assistance to the network of landowners interested in establishing private protected areas as well as to the Ministry of Environment's GEF re-engineering project.
2.3.	Promoting Sustainable finance mechanisms for conservation	
2.3.3	Support the DR Gov in the development of financial mechanisms to promote sustainable conservation of biodiversity and adaptation to climate change	Work has continued on the organization of a workshop on sustainable finance mechanisms that will be conducted with UNEP's support in late august. This workshop is intended to provide practical tools and information, and create a space for reflection to help design a proposal for the creation of a National Fund for Biodiversity Conservation (NFBC), and select and propose new financial mechanisms for biodiversity conservation and climate change adaptation. Also, a delegation from the Ministry of Environment and the Ministry of Economy, Planning and Development participated in the first senior officials meeting of the Caribbean Challenge Initiative, with support from TNC. And the IDB/GEF funded water funds project begun formal implementation in Q4 of FY12.
2.4.	Promote sustainable fisheries	
2.4.2.	Continue Sustainable Fishing Strategy for Samaná Bay will be carried out to promote sustainable fisheries in the area.	<p>Three workshops were carried out on fisheries legislation for cooperative groups, the training was targeted to the fishers' cooperatives being established with program's support: San Lorenzo Bay, Holy Spirit, and La Union.</p> <p>The fishers groups also participated in a five days training on cooperatives operations and in a meeting with the Mayors from the municipalities around Samaná Bay.</p> <p>The co-management agreements are still pending due to CODOPESCA's internal processes and delays caused by the election process.</p>
2.5	Invasive Species	
2.5.1	Design and implement an invasive species management plan for a priority site	Trainings to Ministry of Environment's technicians – and other government entities and NGO's took place. Training to fishermen & hotel and restaurants owner in the Bayahabe area and Samana took place. See table I for details.
2.6.	Watershed management for biodiversity conservation	
2.6.1	Support the implementation of a native and endemic plant species conservation program	Equipment donation for the Nigua Seeds Bank. Several visits from the US Forest Service visited Dominican Republic to participate in the equipment installation at Nigua National Seed Bank and trainings for Ministry of Environment staff. During training, Dominican technicians learned techniques used for seed classification, processing, quality assurance, storage, and germination. Two training sessions took place in the U.S.. Complementarily, an evaluation of procedures used in the DR for handling the seeds was carried out, and protocols to maintain operation within international standards and ensure greater purity of seeds in storage were discussed.

NO.	Component / Activities	Activities and progress during FY12
2.6.2	Evaluation of biological health indicators for aquatic ecosystems	Visit of John Sowles and David Courtemanch, from TNC's Maine Chapter, to participate in the field sampling of biological indicator species for the water quality monitoring and regulation to be implemented by the Ministry of Environment. In addition, a two days training session on ecosystem restoration was held in Jarabacoa on April 19 & 20 for science staff, conservation practitioners and park rangers in the Ministry of Environment. Monthly sampling of biological indicators of water quality (IBCA) during all FY12.
2.6.3	Support the implementation of pilot project of micro-watershed management and restoration	During reporting period restoration works continued in the Dajaos micro-watersheds, where all artificial drainage systems installed for agricultural plantations – currently removed. Trenches that altered the natural drainage were filled with material that was deposited and four hundred sixty-two (462) small wooden structures were built inside the drains to slow water velocity and trap sediment (shown in pictures below). Complementarily, pine trees planting continued – another 50,000 seedlings were planted in three different areas.
III. Market Based conservation		
3.2.	Assessing opportunities in sustainable forestry	
3.2.3	Support to National Strategy for Forest Fire Management	Four trainings in forest fire management and control took place during FY12. Course on fire ecology were carried out. Completed the final reports of these three documents: "The Timber Seed Market in the Dominican Republic with Emphasis on Native Species and Endemic species" (which also supports the establishment of the Nigua Seed Bank), "Calendar for Seed Collection of Forest Species (Dominican Republic), Volume II" and "Guide of Timber Trees of the Dominican Republic." Recon trip for recognition of forest nurseries for endemic and native species and observation of solar stoves for cooking Haitian families, with the participation of two USFS staffers. Production of documentary on the forest sector in final stage.
V. Climate Change Adaptation		
5.1.	Increase public awareness and policy development	
5.1.1	Support the Ministry of Environment and the CCC in the development of policy instruments for adaptation to climate change, institutional strengthening and capacity building.	Contribution in the development of the Survey on Public perception and Knowledge regarding CC, elaborated by Gallup. Accompaniment in the policy development process. Attendance of EPP' partners to the Adaptation Futures 2012 International Conference on Climate Adaptation, in Tucson AZ. One representative from the Environment Ministry and one from the National Council on Climate change and Clean Development Mechanism. Coordination meetings held with the local UNDP office, the CCCCDM in order to establish program support for the development of the national policy on climate change. Course on
5.1.3	Awareness campaign for key constituents and the general public on climate change adaptation at national and local levels.	Several presentation of the vulnerability assessment took place during reporting period. During reporting period informative sessions with 7 municipalities were carried out and a baseline establishment regarding municipal comprehension of CC. Several activities with congressmen and congresswomen had to be rescheduled because of the presidential election campaign.
5.1.4	Climate Change vulnerability assessment to support the development of a national CCA plan.	Assessment was concluded after a thorough consultation process, and presented to different stakeholders. Complementary analysis was developed by TNC, overlaying vulnerability assessment data with projected climate change scenarios. Recommendations for adaptation were drafted and shared with USAID.
5.1.5	Promote voluntary agreements to support climate change adaptation strategies	The first community-based climate change adaptation network was formally established with 32 different community based organizations - representing popular neighborhoods of Santo Domingo City and some government entities. Work continues to promote agreements among private sector and other key stakeholders.
5.2.	Ecosystem based adaptation	
5.2.1.	Promoting freshwater security in a changing climate	Riverside Technology Inc. was selected in a competitive bidding process, contracted and data gathering is currently undergoing. A MoU has been signed by TNC and INDRHI to foster collaboration with this DR Gov institution critical to this process.

NO.	Component / Activities	Activities and progress during FY12
5.2.2.	Climate Change Adaptation in coastal and marine areas	Temperatures and AGGRA monitoring (conservation status of coral reefs in the shallow zone) data collection in National Park del Este vicinity and Southeastern reefs continued. The objective is to identify species resilient to climate change. Areas for coral nurseries installment have been selected. Private diving tour operators have been contributing <i>pro bono</i> with temperature monitoring during their excursions. Six pilot test frames were submerged.

V. OUTSTANDING ISSUES AND CHALLENGES

Fiscal year presented several challenges, most of them related to the fact that it was an electoral year, and that change in administration lasts 3 months, after election has concluded. The campaign and the administration change affected the implementation dates of several activities for which government participation is necessary. Two different ministers have been in charge and the resources flow to protected areas was affected due to shifts in official priorities.

There was also a delay in the issuance of presidential decrees making official the three fishermen cooperatives assisted by the program. This delay adds further pressure on the pursuit of the co-management agreement for the marine area of Sanchez, in Samaná, to be signed by the cooperatives with CODOPESCA.

Follow up on the inventory of equipment and supplies purchased by the project for use by the Ministry of Environment (title vested in U.S. Government) has resulted in a heavier than planned administrative burden for the project implementation team. A physical verification of all inventories has been coordinated with USAID/DR and the program will continue to work closely with the Ministry to identify ways to improve control and reporting.

In terms of hydrological modeling of selected watershed, data has not been promptly provided by Government institutions. Internal processes have delayed delivery dates of such data; there are also serious issues with data quality and completeness. This has caused subsequent delays in modeling workshops planned.

Storm Isaac displaced some of the coral nurseries frame installed in most shallow restoration points. This however has become a learning experience for reposition of frames and installment of new ones.

VI. LEVERAGE AND UNEXPECTED OUTCOMES

- Participation of IDDI as Civil Society Observer and the CIF-PPCR Subcommittee in Washington DC (April 27th to May 1st)

Project implementing partner IDDI was selected last January to participate as a Civil Society Observer for Latin America and the Caribbean at the Climate Investment Funds Pilot Program for Climate Resilience subcommittee. As such, the institution was invited to participate in the Subcommittee Meeting for the PPCR, taking place at the World Bank headquarters in Washington DC, as well as in an orientation session for new observers of the CIF for the 2012-2014 period.

During the orientation session, observers were received by representatives of the World Bank and other multilateral banks (Asian Development Bank, Interamerican Development Bank, African Development Bank, International Bank for Reconstruction and Development), as well as the CIF Administrative Unit, who

explained the structure of the CIF and its subcommittees, main stakeholders, observers and their roles, CIF events, CIF association with the private sector and independent evaluation of the CIF.

- Collaboration with UN CC: Learn project

The National Counsel for Climate Change and Clean Development Mechanisms, within the framework of the UN CC: Learn Project (of which the Dominican Republic is a pilot country), organized the workshop “Result-based actions for the strengthening of human resources, learning and the skills to move towards a green, low emissions and climate change resilient development”.

The workshop aimed at the development of priority actions to face the immediate needs of professional training and to strengthen the national institutional capacity to offer training programs, especially those related to the inclusion of climate change in the academic syllabus at all education levels, and to raise the awareness of priority stakeholders. The workshop included the prioritization and definition of possible actions to be implemented at the different educational levels. The USAID-TNC EPP has been working closely with their implementing unit and the CCCCDM to promote synergies. One example is the participation of RAUDO (the universities network established with EPP support) in the UN CC Learn project, specifically for the development of strategies to incorporate climate change into higher education curricula.

- Participation of EPP partners in international marine *fora*

USAID-TNC EPP's local implementing partners have been active in international spaces for decision making regarding natural resources and biodiversity conservation. FUNDEMAR was invited to attend the “UNEP LifeWeb Inter-regional Workshop on Broad-Scale Marine Spatial Planning and Trans-boundary Marine Mammal Management”. During the event, representatives of the southeast and northeast Pacific, North America and Greater Caribbean met to share and analyze maps of large whale migration routes, critical habitats, human threats, and to discuss priority trans- boundary action.

On a related note, partner CEBSE attended the 64th Annual Meeting of the International Whaling Commission (IWC) and the associated meetings of its Scientific Committee and other sub-groups that took place in Panama City, from 11 June to 6 July 2012. With information from the whale database collected by CEBSE, partially with program support, CEBSE drafted a paper to be presented to the IWC's scientific committee to promote DR's position to ZERO whale hunting. The DR-Gov commitment to the initiative was obtained as part of the process to develop the provincial environmental agenda and social pact for Samaná province.

Other resources leveraged by the USAID-TNC EPP include the following:

- Collaboration with UNDP Santo Domingo office in the development of the national survey on climate change knowledge and perception, and on the development of the national policy on climate change.
- Participation of the Boat Owners Association of the Samaná Bay, which donated 512 monitoring trips of humpback whales during 2012 season, representing a total of DOP 531,472.50 (approximately US\$13,818.28).
- Continued support from TNC Maine chapter and volunteers on the development of biological indicators of water quality.
- Activities in the GEF funded National Protected Areas System Re-engineering project implemented by the Ministry of Environment complement work done by USAID-TNC EPP to improve protected areas management at the site and system level.
- Collaboration with Farmer to Farmer and Colorado State University for training in protected areas management.
- Implementing partner IDDI negotiated support from a major media group to produce the GCC awareness campaign with saving up to 60% in prices.
- Diving schools and tour operators in Bayahibe are supporting coral reef monitoring without cost to the project.

VII. MAJOR ACTIVITIES PLANNED FOR NEXT QUARTER:

The program will continue work on the hydrological modeling to assess climate change impacts in 4 main watersheds in the Dominican Republic. The first training and scenarios building workshop is planned for February 2013.

Initial activities in the development of land zoning plan with CCA approach for Samaná province. These will include work with FEDOMU, the Liga Municipal Dominicana, the Ministry of Economy, Development and Planning, as well as other relevant national level institutions to engage them in the process and to promote capacity building that will enable replication of this initiative for other municipalities and the national level.

Continue reef monitoring and testing for reef's nurseries and preparing workshops for the development of an action plan for adaptive management of southeastern coral reefs.

Continue work in Nizao and Haina watersheds as part of the "Promoting freshwater security in a changing climate" project.

Participation and accompaniment to the UNDP funded project for the development of the National Policy on Climate Change.

Assistance will be provided to the Environment Ministry to mainstream climate change consideration to all Ministry's thematic dependencies and to incorporate climate change consideration in the environmental permitting process.

Initiate collaboration with MITUR to incorporate GCC adaptation considerations into tourism development regulations (case site Bayahibe)

Appendix A: Narrative Summary of Expenditures by Contract Budget category up to September 30st, 2012

Appendix B: Success Stories 2012

Appendix C: Project Monitoring Plan (PMP)

Appendix D: Inventory

Appendix E: Monthly Bulletins

Appendix F: List of Deliverables
